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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/502,138	04/25/2005	Donald Wilson McDonald	KNN-018	1504
22832 7590 07/30/2007 Kirkpatrick & Lockhart Preston Gates Ellis LLP (FORMERLY KIRKPATRICK & LOCKHART NICHOLSON GRAHAM) STATE STREET FINANCIAL CENTER One Lincoln Street BOSTON, MA 02111-2950			EXAMINER TSENG, CHENG YUAN	
			ART UNIT 2184	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/502,138

Applicant(s)

MCDONALD, DONALD WILSON

Examiner

Cheng-Yuan Tseng

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 12/15/2005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

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DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because the abstract of the disclosure does not commence on a separate sheet in accordance with 37 CFR 1.52(b)(4). A new abstract of the disclosure is required and must be presented on a separate sheet, apart from any other text. Correction is required. See MPEP § 608.01(b).

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: "An Embedded Control Module for Expansion of Serial Peripheral Device Ports in A System of Kiosk Application".

3. The disclosure is objected to because of the following informalities:

- a. In page 1, line 17, revise "initialisation" with "initialization" for typographic error.

Appropriate correction is required.

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4. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

In claim 3, line 2, the claim language directed to monitor "the state of the motherboard", however there is no proper finding on clear support or antecedent basis in the description so that the meaning of the terms in the claims may be ascertainable by reference to the description. Currently, "the state" is merely referenced as "the state of the PC" (page 2, lines 17-18), and "the state of said motherboard" (page 4, line 19).

In claim 4, line 2, the claim language directed to monitor "the state of software running", however there is no proper finding on clear support or antecedent basis in the description so that the meaning of the terms in the claims may be ascertainable by reference to the description. Currently, the specification has no reference of any kind of software running states.

In claim 6, line 3, the claim language directed to monitor "the state of a power supply", however there is no proper finding on clear support or antecedent basis in the description so that the meaning of the terms in the claims may be

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ascertainable by reference to the description. Currently, "the state of a power supply" is merely referenced as "the state of batteries connected to the uninterruptible power supply" (page 3, line 5-9).

5. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in

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37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Objections

6. Claims 7-10 are objected to because of the following informalities:

- In claim 7, line 1, consider revise "a motherboard" with "said motherboard", because it refers to the same motherboard in claim 1.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

7. Claims 3-4, and 6 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 3, line 2, the "monitoring means" is considered as indefinite because when means plus function language is used to define invention, such a language must be interpreted to read only the structure or materials disclosed in the specification.

However, the specification does not have any structure or material for such "monitoring means". It merely stated the monitoring is a preferable feature; therefore, it is considered as indefinite. (page 4, lines 18-19). See MPEP 2106 (II).

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In claim 4, line 1, the "monitoring means" is considered as indefinite because the specification merely stated the "monitoring means" is a preferable feature. (page 4, lines 21-22).

In claim 6, line 2, the "monitoring means" is considered as indefinite because the specification merely stated the "monitoring means" is a preferable feature. (page 4, lines 27-29).

Claim Rejections - 35 USC §102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless - (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

9. Claims 1-2 and 7-9 are rejected under 35 U.S.C. §102(e) as being anticipated by Watts Jr. (US Patent 6,804,740), hereinafter referring to as Watts'740.

Referring to claim 1, Watts'740 discloses a control module comprising:

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a motherboard bus connector (fig. 2, docking interface connector 154) for communication with a motherboard (fig. 2, computer system 120);

a motherboard bus (fig. 6A USB 276) to serial port bridge module (fig. 6A, USB hub logic 610);

at least one serial port connector (fig. 6A, USB port 612);
and

a processor module (fig. 6A, general purpose i/o controller 400).

As to claim 2, Watts'740 discloses the control module of claim 1 adapted to provide at least one peripheral control port (fig. 6A, audio speaker 140, led 135, etc) for said motherboard.

As to claim 7, Watts'740 discloses a system comprising a motherboard (fig. 2, computer system 120) and the control module of claim 1.

As to claims 8-9, Watts'740 discloses the system of claim 7 further comprising a socket server means (fig. 9, block 904, driver code that is appropriate to the device) for providing event handler for (fig. 9, block 904, USB device) at least one serial port corresponding to said at least one serial port connector and operating substantially in between the application

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layer and the operating system layer (fig. 9, operating system) of the software executing on the motherboard.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. §103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-6, and 10 are rejected under 35 U.S.C. §103(a) as being unpatentable over Watts'740, in view of Jagers'270 (U.S. Patent 7,076,270), hereinafter referring to as Jagers'270.

As to claim 3, Watts'740 discloses the control module of claim 1.

Watts'740 does not appear to explicitly disclose the processor module comprises a monitoring means for monitoring the state of said motherboard.

However, Jagers'270 discloses a detection mechanism which detects when device is docked in docking station (col. 2, lines 57-65).

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Watts'740 and Jaggers'270 are analogous art because they are from the same field of endeavor in docking station design.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art, having the teaching of Watts'740 and Jaggers'270 before him or her to modify the docking station of Watts'740 to include the detection mechanism of Jaggers'270.

The suggestion/motivation for doing so would have been let the docked device such as a wireless device or low-end PC (col. 2, lines 46-48) to accept inputs from peripherals (col. 3, lines 45-57) as suggested by Jagger'270.

Therefore, it would have been obvious to combine Watts'740 with Jaggers'270 to obtain the invention as specified in the instant application claims.

As to claim 4, Watts'740 discloses the control module of claim 3.

Watts'740 does not appear to explicitly disclose the monitoring means further monitors the state of software running on said motherboard.

However, Jaggers'270 discloses a detection mechanism which detects when device is docked in docking station (col. 3, lines

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45-57, such as logic in the processor accepts input from wireless communication device).

Watts'740 and Jaggars'270 are analogous art because they are from the same field of endeavor in docking station design.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art, having the teaching of Watts'740 and Jaggars'270 before him or her to modify the docking station of Watts'740 to include the detection mechanism of Jaggars'270.

The suggestion/motivation for doing so would have been let the docked device such as a wireless device or low-end PC (col. 2, lines 46-48) to accept inputs from wireless device (col. 3, lines 45-57) as suggested by Jagger'270.

Therefore, it would have been obvious to combine Watts'740 with Jaggars'270 to obtain the invention as specified in the instant application claims.

As to claim 5, Watts'740 discloses the control module of claim 1 wherein the processor module has PC power supply (fig. 6A, power supply 506 504).

Watts'740 does not appear to explicitly disclose the processor module has a battery power supply and monitoring means.

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However, Jagers'270 discloses the processor module has a battery power supply (fig. 1, battery 190), and monitoring means (fig. 1, charging circuit 191).

Watts'740 and Jagers'270 are analogous art because they are from the same field of endeavor in docking station design.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art, having the teaching of Watts'740 and Jagers'270 before him or her to modify the docking station of Watts'740 to include the battery and charging circuit of Jagers'270.

The suggestion/motivation for doing so would have been provide continuous power to dock i/o interface and USB hub (col. 4, lines 58-59) as suggested by Jager'270.

Therefore, it would have been obvious to combine Watts'740 with Jagers'270 to obtain the invention as specified in the instant application claims.

As to claim 6, Watts'740 discloses the control module of claim 1 wherein the processor module further comprises power supplying said motherboard.

Watts'740 does not appear to explicitly disclose a power supply monitoring means for monitoring the state of a power supply.

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However, Jagers'270 discloses the processor module has a battery power supply (fig. 1, battery 190), and monitoring means (fig. 1, charging circuit 191).

Watts'740 and Jagers'270 are analogous art because they are from the same field of endeavor in docking station design.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art, having the teaching of Watts'740 and Jagers'270 before him or her to modify the docking station of Watts'740 to include the battery and charging circuit of Jagers'270.

The suggestion/motivation for doing so would have been provide continuous power to dock i/o interface and USB hub (col. 4, lines 58-59) as suggested by Jager'270.

Therefore, it would have been obvious to combine Watts'740 with Jagers'270 to obtain the invention as specified in the instant application claims.

As to claim 10, Watts'740 discloses the system of claim 7 further comprising a power supply (fig. 6A, power supply 506 504) wherein an electrical connection is diverted through circuit (fig. 6A, controllable switch 500 502) is controlled by said processor module.

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Watts'740 does not appear to explicitly disclose a battery, and a battery management circuit.

However, Jagers'270 discloses a battery (fig. 1, battery 190), and a battery management circuit (fig. 1, charging circuit 191).

Watts'740 and Jagers'270 are analogous art because they are from the same field of endeavor in docking station design.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art, having the teaching of Watts'740 and Jagers'270 before him or her to modify the docking station of Watts'740 to include the battery and charging circuit of Jagers'270.

The suggestion/motivation for doing so would have been provide continuous power to dock i/o interface and USB hub (col. 4, lines 58-59) as suggested by Jager'270.

Therefore, it would have been obvious to combine Watts'740 with Jagers'270 to obtain the invention as specified in the instant application claims.

Conclusion

The following prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See M.P.E.P 707.05(c).

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US Patents

- Barrett'393 teaches socket server for networked printing devices.
- Worley'190 discloses embedded remote computer control.
- Kasamatsu'808 discloses expansion unit for computer systems.
- Iho'050 discloses expansion card.
- Yanagisawa'412 discloses docking station.

The examiner requests, in response to this office action, support be shown for language added to any original claims on amendment and any new claims. That is, indicate support for newly added claim language by specifically pointing to page(s) and line number(s) in the specification and/or drawing figure(s). This will assist the examiner in prosecuting the application. When responding to this office action, applicant is advised to clearly point out the patentable novelty which he or she thinks the claims present, in view of the state of art disclosed by the references cited or the objections made. He or she must also show how the amendments avoid such references or objections. See 37 C.F.R. 1.111(c).

In amending in reply to a rejection of claims in an application or patent under reexamination, the applicant or patent owner must clearly point out the patentable novelty which

he or she thinks the claims present in view the state of the art disclosed by the references cited or the objections made. The applicant or patent owner must also show how the amendments avoid such references or objections.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cheng-Yuan Tseng whose telephone number is 571-272-9772, and fax number 571-273-9772. The examiner can normally be reached on 08:30-17:00 Monday-Thursday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Henry Tsai can be reached on 571-272-4176. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC central telephone number, 571-272-2100.

In order to reduce pendency and avoid potential delays, Group 2100 is encouraging FAXing of responses to Office actions directly into the Group at fax number: 703-871-9306. This practice may be used for filing papers not requiring a fee. It may also be used for filing papers which require fee by applicants who authorize charges to a PTO deposit account. Please identify the examiner and art unit at the top of your

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cover sheet. Papers submitted via FAX into Group 2100 will be promptly forward to the examiner.

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HENRY TSAI
SUPERVISORY PATENT EXAMINER

7/23/07